

<b>DECLARATION UNDER RULE 132</b>	Application #	10/511,533
	Confirmation #	4414
	Filing Date	10/15/2004
	First Inventor	LAMERI Paolo
	Art Unit	1611
	Examiner	Purdy, Kyle A.
	Docket #	LAVO-37109

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir,

I, Alberto SARDO, residing at 17, Montée des Tours, 13160 Chateaurenard, France, declare and say as:

1. I am an Italian citizen.

2. I obtained a PhD in organic chemistry from the Bologna University in 1961. I am President of the Board of Xeda International, who is the present assignee of the above patent application and who develops plant protection products. I am perfectly familiar with assays relating to treatment agents for agricultural cultivation. I supervised the tests carried out by Agribiotec s.r.l. that are referred to below.

3. I am aware that claims 8, 9, 22 and 23 of the present patent application have been rejected under 35 U.S.C. 103(a) as being unpatentable over Bratescu et al (US 6,528,070) in view of Narayanan et al. (US 5,176,736) and that claims 12, 13, 26 and 27 are rejected under 35 USC 103(a) as being unpatentable over Bratescu et al. (US 6,528,070) in view of Narayanan et al. (US 5,176,736) and further in view of Huber-Emden et al. (US 3,873,703).

4. The above-identified application is directed to a method for preventive or curative treatment of a fungicidal disease on an agricultural cultivation, comprising

applying a fungicide and a water emulsion, wherein said emulsion comprises 15-85% water and 85-15% soil soybean oil.

5. The Examiner has taken the position that one of ordinary skilled in the art would have been motivated to apply an emulsion comprising water, a vegetable oil and an optional fungicide.

6. Experimental trials conducted by the inventors showed that water emulsions comprising 15-85% water and 85-15% soybean oil unexpectedly improved the efficiency of the fungicide substances. This is apparent from the experimental data and below:

A stable water emulsion comprising soybean oil in a percentage of 40% by weight or volume with respect to the overall weight or volume of the emulsion was applied to cultivation, in combination with the following fungicide agents: Mancozeb, Folpet, Dimethomorph, Azoxystrobin, Fosetyl-aluminium, Sulphur, Cyprodinil + Fludioxonil.

The following results were obtained:

Cultivation :		muscat vine				
Soil :		average admixture				
Test target :		fight against peronospora ( <i>Plasmopara viticola</i> )				
Thesis No.	Active Ingredients	Amounts of Active Ingredients (g or ml/ha)	No. of Interventions	Surveys on peronospora		Action Degree
				% infection on bunches	% spreading on bunches	
1	Untreated	-	-	4.9 a	9.8 a	0
2	Mancozeb	1470	11	0.2 b	0.3 b	97.4
3	Mancozeb + Emulsion	490 + 280	11	0.0 b	0.0	100
Statistical significance: data items followed by same letter do not differ for P=0.05 in accordance with Duncan test.						

Cultivation :		muscat vine				
Soil :		average admixture				
Test target :		fight against peronospora ( <i>Plasmopara viticola</i> )				
Thesis No.	Active Ingredients	Amounts of Active Ingredients (g or ml/ha)	No. of Interventions	Surveys on peronospora		Action Degree
				% infection on bunches	% spreading on bunches	
1	Untreated	-	-	4.9 a	9.8 a	0
2	Dimethomorph	1050	11	0.0 b	0.0 b	100
3	Dimethomorph + Emulsion	350 + 280	11	0.0 b	0.0 b	100

Statistical significance: data items followed by same letter do not differ for P=0.05 in accordance with Duncan test.

Cultivation :	muscat vine					
Soil :	average admixture					
Test target :	fight against peronospora ( <i>Plasmopara viticola</i> )					
Thesis No.	Active Ingredients	Amounts of Active Ingredients (g or ml/ha)	No. of Interventions	Surveys on peronospora		Action Degree
				% infection on bunches	% spreading on bunches	
1	Untreated	-	-	4.9 a	9.8 a	0
2	Azoxystrobin	250	11	0.0 b	0.0 b	100
3	Azoxystrobin + Emulsion	83 + 133	11	0.0 b	0.0 b	100
Statistical significance: data items followed by same letter do not differ for P=0.05 in accordance with Duncan test.						

Cultivation :	muscat vine					
Soil :	fresh calcareous					
Test target :	fight against mildew ( <i>Uncinula necator</i> )					
Thesis No.	Active Ingredients	Amounts of Active Ingredients (g or ml/ha)	No. of Interventions	Surveys on mildew		Action Degree
				% infection on bunches	% spreading on bunches	
1	Untreated	-	-	25.3 a	87.3 a	0
2	Sulphur	4795	6	2.2 b	12.5 bd	85.7
3	Sulphur + Emulsion	1598 + 800	6	1.5 b	9.4 bd	89.3
Statistical significance: data items followed by same letter do not differ for P=0.05 in accordance with Duncan test.						

Cultivation :		muscat vine				
Soil :		average admixture				
Test target :		fight against acid rot				
Thesis No.	Active Ingredients	Amounts off.c. (g or ml/ha)	No. of Interventions	Surveys on botritis		Action Degree
				% infection on bunches	% spreading on bunches	
1	Untreated	-	-	1.3 a	40.0 a	0
2	(Cyprodinil +Fludioxonil)	(300 + 200)	2	0.2 d	11.5 cd	78
3	(Cyprodinil +Fludioxonil) + Emulsion	(101 + 68) + 108	2	0.4 bd	21.5 bd	86.8
Statistical significance: data items followed by same letter do not differ for P=0.05 in accordance with Duncan test.						

10. It appears from the results above that the application of a water emulsion comprising soybean oil allows a significant reduction of the dose of the fungicide to be applied (to 1/3 of the reference dose), while maintaining the same level of fungicide activity.

11. This significantly improved activity was neither disclosed nor suggested in the cited documents.

The present claims thus involve an inventive step over the cited documents.

12. The undersigned declares further that all statements made herein of his knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of United States Code and that such wilful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed this 27<sup>th</sup> day of April 2009



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Alberto SARDO